

Amendments to the Drawings:

Attached hereto after page 7 of this paper is a Replacement Drawing Sheet in which Fig. 2 has been amended to correct a reference numeral as requested by the Examiner.

Attachment: Replacement Drawing Sheet

REMARKS/ARGUMENTS

Claims 1 and 3-7 are pending herein. Claim 1 has been amended to incorporate the content of claim 2 and as supported by the specification at page 15, line 19 to page 16, line 16. Claim 2 has been cancelled hereby. Applicants respectfully submit that no new matter has been added.

1. The Examiner's objection to Fig. 2 is noted, but deemed moot in view of the amended drawing attached hereto. As discussed on page 5 of this paper, amended Fig. 2 corrects the reference numeral for the vehicle in Fig. 2.

2. Claims 1 and 4 were rejected under §103(a) over Kato in view of Atsumi. Independent claim 1 has been amended to incorporate the content of dependent claim 2. Since claim 2 was not rejected based on these references, the amendment to independent claim 1 renders this rejection moot.

3. Claim 2 was rejected under §103(a) over Kato and Atsumi and further in view of Yamada. To the extent that this rejection might be applied against the amended claims, it is respectfully traversed.

Kato discloses a gas sensor element that includes an inner protective cover, intermediate protective cover and an outer protective cover that each contain a plurality of gas inlet holes and cover at least a forward end portion of the gas sensor element.

Atsumi discloses a gas sensor with inner and outer protective covers having an equal number of inner and outer gas inlet holes providing an equal total area to prevent loss of gas sensor detection accuracy.

Yamada discloses a gas sensor having a double-pipe cover structure to prevent condensed water from entering the interior of the gas sensor. As stated in the Office Action, Yamada only discloses that a number of holes in the inner protective cover and the outer protective cover are variable and have an affect on response time of the

gas sensor. Applicants respectfully submit that having a greater number of inner gas inlet holes than outer gas inlet holes, and having the area of each inner gas inlet hole be less than the area of each outer gas inlet hole, as claimed, provides a pressure drop that reduces the flow rate of the measurement gas and facilitates the diffusion of the measurement gas prior to the measurement gas contacting the sensor element surface. This claimed configuration precludes local temperature changes being caused by concentrated measurement gases contacting the gas sensor which may cause cracks in the sensor element (as discussed on pages 15 and 16 of the specification). Thus, the purpose of the claimed configuration of the inner gas inlet holes and the outer gas inlet holes differs from the configuration disclosed in Yamada and provides the unobvious advantages discussed above.

Based on the above, the cited references fail to render the claimed configuration obvious. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

3. Claim 3 was rejected under §103(a) over Kato and Atsumi and further in view of Toguchi; claim 5 was rejected under §103(a) over Kato and Atsumi and further in view of Watanabe; claim 6 was rejected under §103(a) over Kato and Atsumi and further in view of Young; and claim 7 was rejected under §103(a) over Kato and Atsumi and further in view of Nakamura. Applicants respectfully traverse these rejections, because all of these claims directly depend from claim 1, and claim 1 is patentable for the reasons explained above.

For at least the foregoing reasons, Applicants respectfully submit that all claims pending herein are in condition for allowance. Accordingly, Applicants respectfully request that the Examiner issue a Notice of Allowance for this application in due course.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

May 1, 2007

Date

Respectfully submitted,



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SPB:JAW:jms

Attachment: (1) replacement drawing sheet

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